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# **USSR** Report

**AGRICULTURE** 

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17 August 1984

# USSR REPORT AGRICULTURE

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#### MAJOR CROP PROGRESS AND WEATHER REPORTING

## PREPARATIONS FOR CORN SOWING OPERATIONS IN SOUTHERN UKRAINE

Kiev PRAVDA UKRAINY in Russian 17 Apr 84 pp 1, 3

/Article by N. Avramenko, Yu. Yenov, G. Selin and Ye. Solodovnikova: "Southern Region Prepared for Sowing"; Reference article appears in JPRS UAG-84-020, 5 Jun 84]

/Excerpts/ In addition to ardently supporting the initiative displayed by the Denpropetrovsk farmers, the corn growers in the three competing oblasts -- the Crimean, Kherson and Nikolayev -- are doing everything possible to ensure that each hectare of land in the southern region produces a worthy return. The areas used for this crop have been increased in all three oblasts. The task of the farmers -- to ensure accurate and at the same time creative observance of the technology. Only in this manner will it be possible to attain the high goals outlined in the obligations. And they are truly high. The gross yield of amber grain in Kherson Oblast must reach 700,000 tons, in the Crimean Oblast -- 214,000 tons and in Nikolayev Oblast -- 700,000 tons.

An important and exciting stage continues to draw nearer -- the first day of sowing. The corn fields on farms in all three of the oblasts have been assigned to specialized teams and brigades. General training in obtaining high yields for this valuable grain forage crop was organized this winter for the machine operators, team leaders, agronomists and chief specialists on the farms. For example, more than 1,200 team leaders and chiefs of mechanized detachments in Nikolayev Oblast undertook special two-week courses. The training of machine operators in the Crimea was carried out at support farms in each rayon, with special attention being given to the specific peculiarities of the technology and to the use of the equipment under this year's conditions. In Kherson Oblast, at the Ukrainian Scientific Research Institute of Irrigation farming, retraining was provided for the RAPO /rayon agroindustrial association/ chiefs and chief agronomists and for the chief engineers and chief agronomists of rayon associations of sel'khoztekhnika and sel'khozkhimiya. This training has truly become massive in nature in all areas: it encompasses various schools, courses, seminars an literally everybody who this year is participating in the corn cultivation operations. The personnel are well aware that such general training is necessary if the planned goals are to be achieved.

In the Crimean Oblast, 197 mechanized teams promised to obtain 80 quintal yields of grain and 89 collectives expect to obtain no less than 100 quintal

yields. Roughly 860 cost accounting corn growing teams have been created in Kherson Oblast and they have all undertaken tense obligations.

As is well known, the winners this year will be those who are able to utilize leading experience in an efficient and creative manner. The storehouse of such experience is inexhaustible and this also truly applies to the corn fields -- from the very first days of spring until that moment when the last ear is harvested from the fields. During this year's sowing operations the Crimean machine operators will apply herbicides on an extensive scale using coupled KPS-4 cultivators. The experience of Crimean leading collectives has shown that this process raises labor productivity twofold and that an entire detachment of machine operators is made available for other work. On many farms the plans call for the use of the new BP-8 harrows, not only for cultivating the soil but also for applying the herbicides, as was done last year by the farmers in Sakskiy Rayon, who went on to obtain fine results.

On 17 farms in Kherson Oblast, following the example of the Kolkhoz imeni XXI S'yezda KPSS in Tsyurupinskiy Rayon, the herbicides will be applied together with water. At the same time, the quality of the cultivation work is being raised and labor expenditures lowered.

A new technology has been in use for 2 years now in Kherson Oblast for the harvesting and storage of grain corn of a raised moisture content. In accordance with this technology, the grain is harvested at a moisture content of less than 35 percent using Niva combines with PPK-4 attachments. The grain is milled and placed in containers. The green substance of sown grasses obtained from post-harvest sowings is added to the leaf and stalk bulk -- and fine silage is obtained. Last year grain corn was obtained from the fields in this manner and 211,000 tons of this excellent feed were placed in storage. This year, of 150,000 hectares of corn for silage and green feed, the plans call for 110,000 hectares to be cultivated using the grain technology and with fodder being obtained as well as the grain.

This was a correct decision. Only one action remains -- the decision must be carried out unconditionally. This requires the persistent introduction of the experience of the Sovkhoz imeni 60-Letiya Sovetskoye, the Kolkhoz imeni Kirov in Belozerskiy Rayon, the kolkhozes Ukraina and imeni Krupskaya in Kakhovskiy Rayon and a number of other farms.

A few days from now the machine operators will commence sowing their corn. The equipment has been prepared well. For the most part, the farms have been supplied with high quality seed for regionalized hybrids and the work of incrustation and water-proofing of the seed is nearing completion. The fields have been given a top dressing of nutrients and the units and assemblies required for applying herbicides have been made ready for operations.

Today the corn growers are confronted by one great and important task. All of the work out on the fields -- from sowing to harvesting this valuable forage crop -- must be carried out in an organized and high quality manner and the planned goals achieved.

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#### MAJOR CROP PROGRESS AND WEATHER REPORTING

CORN SOWING OPERATIONS IN DONETSK, VOROSHILOVGRAD OBLASTS

Kiev PRAVDA UKRAINY in Russian 28 Apr 84 p 2

/Article by A. Zharkikh and N. Ladanovskiy: "Detachments Are Carrying Out the Sowing Operations"/

Text/ This year the corn growers in Donetsk Oblast have vowed to obtain 36 quintals of grain from each hectare and those in Voroshilovgrad Oblast -- 33.6 quintals. The machine operators in both competing oblasts are well aware that, in light of the current weather conditions, success will be achieved only by those collectives which utilize all of their expertise and creatively employ the rich experience of leading workers.

Using the industrial technology, the farmers in Voroshilovgrad Oblast will grow corn on an area of 80,000 hectares -- this is 20,000 more hectares than last year. All of the pre-sowing work was carried out during the best periods. Moisture retention work was carried out in a timely manner, the fields were leveled off and the sowing is being conducted on the basis of technological charts. However, there have also been some problems. Adjustments to the sowing equipment were dragged out on some farms and the sowing machines were not tested in a timely manner. This work must now be carried out at the kolkhozes and sovkhozes in a highly organized manner and all efforts must be directed towards ensuring that the machines perform in a reliable manner and that the sowing is completed as rapidly as possible.

The workers in Voroshilovgrad Oblast moved more than 2,000 sowing machines out onto the fields. Wide-cut units are being employed on many of the farms.

Grain corn will be grown using the industrial technology on 135,000 hectares in Donetsk Oblast.

Donetsk Oblast Sel'khoztekhnika performed quite well during the period devoted to preparing for the sowing work. In particular, mention should be made of the desire to retain each and every drop of moisture in the soil. Thus, multiple-unit machines were employed extensively for sowing, mainly the Slavutich cultivators. By carrying out 3-4 operations during just one pass --application of herbicide, leveling off and packing the soil -- success was achieved in slowing down the soil drying out process. Operational groups

consisting of the best specialists -- Sel'khoztekhnika repair workers -- were created is all of the rayons in Donetsk Oblast. All of the supply bees, all of the technical exchange points without exception and the production-dispatcher service were converted over to around-the-clock operations. In the interest of correcting break-downs at the exchange points, a reserve of units and assemblies was made available and at the supply bases -- spare parts. A "reserve detachment" of repaired and fully equipped tractors was created at these same exchange points.

However, success was not achieved in all areas with regard to taking advantage of leading experience. In Marinskiy Rayon, support groups ensured that the farms were supplied with effective and economic attachments for applying herbicides. However, in Slavyanskiy Rayon, where large enterprises provide support for agricultural production, this useful undertaking was not employed whatsoever.

There is still one other problem considered to be of considerable importance to the farmers in Donetsk Oblast. The kolkhozes and sovkhozes here obtain ammonia liquor from the Stirol Production Association at Gorlovka. But notwithstanding the fact that a large quantity of this fertilizer has accumulated at the present time at the warehouses, it is still not being requisitioned nor delivered to the farms for lack of storage space. This situation must be corrected on an urgent basis. This applies first of all to the Sel'khozkhimiya organizations in Starobeshevskiy and Shakhterskiy rayons.

In both oblasts the seed has been prepared in a thorough manner.

"Use is being made of only 1st class corn seed from mid-season to early ripening and midseason ripening hybrids" stated the deputy chief of the Donetsk Oblast Agricultural Administration I.T. Parfilko.

More than 60 percent of the areas in Voroshilovgrad Oblast will be occupied by the new hybrid Aydar-MV, developed at the oblast experimental station. Last year it revealed an excellent cropping power.

Thus 484 mechanized detachments in Voroshilovgrad Oblast and 1,240 brigades, teams and detachments in Donetsk Oblast have commenced their peaceful assault on the corn fields. For the most part, they have converted over to the use of collective contracts. As is well known, this is also an important condition for achieving success.

In following the example set by the Dnepropetrovsk and Kirovograd machine operators, the corn growers in the Donets Basin are fully resolved to obtain high yields from their corn fields and to make a worthy contribution towards carrying out the country's Food Program.

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## MAJOR CROP PROGRESS AND WEATHER REPORTING

#### CORN SOWING OPERATIONS IN ODESSA OBLAST

Moscow SEL'SKAYA ZHIZN' in Russian 8 May 84 p 1

/Article by A. Soldatskiy, Odessa Oblast: "Corn Sowing Work In Full Swing"/

/Excerpts/ Having undertaken the obligation of obtaining 1 million tons of grain corn this year, the farmers in Odessa Oblast are establishing a strong foundation for the harvest.

The Odessa farmers have many concerns at the present time. But the greatest amount of tension is being felt out on the corn fields. And this is understandable: an area unprecedented in size -- 500,000 hectares -- has been set aside for the corn. At this point however, the April weather is still rather disappointing: the temperature of the soil for some time now has failed to reach the optimum norms. In this situation the farms have been aided by the fact that they prepared their seed in advance with a protective film. The sowing work began several days earlier than usual.

In proceeding to expand the corn sowing areas, the authorities in the oblast foresaw the impending difficulties. Preparations were made in advance, some of the country's leading corn scientists were invited for discussions and trips were undertaken for the purpose of studying leading experience. Praise has been heaped upon some eminent corn growers in Odessa Oblast, specialists such as Anton Zhekov, Nikolay Razinkin, Petr Dribnokhod and many others. All of the corn growers are adopting their best practical experience.

"But a most important consideration is the fact that there is not one hectare of corn in the oblast that remains unowhed" emphasized the 1st secretary of the Odessa Oblast Committee of the Communist Party of the Ukraine A.P. Nochevkin, "Each field has its own master in the form of a team or detachment, of which more than 1,000 have been created. Each and every hectare of plantation was provided with a top dressing of fertilizer in advance. Preparations commenced during the winter for the harvesting and storage of the future corn crop.

The agricultural workers received fine assistance from the industrial enterprises in fertilizing their fields. Seventeen stations were built in various rayons for the storage of anyhdrous ammonia, which is being delivered by railroad transport. And today the rates and scales for fertilizer applications have increased sharply. In addition, the preparation of ammonia liquor has been organized at these stations. At the present time, there are

1,380 units for applying anhydrous ammonia in operation on the farms and there are machines in all areas for applying ammonia liquor to the soil. The liquid fertilizers were applied during the autumn and winter and they are also being applied at the present time.

This work has been organized especially well in Kominternovskiy Rayon, where 30 units are available for applying anhydrous ammonia. They are concentrated in three detachments and each day ammonia is applied to 700 hectares. Overall, the plans call for fertilizer to be applied to more than 60,000 hectares of arable land.

The Danube River zone in Odessa Oblast has long been praised for its corn field specialists. At the border between Tatarbunarskiy and Kiliyskiy rayons, a billboard has been erected which reports that 19 mechanized teams in Kiliyskiy Rayon are competing this year to obtain no less than 100 quintals of grain corn per hectare. Throughout the oblast as a whole, 58 collectives intend to achieve this same yield.

The 1st secretary of the Kiliyskiy Rayon Party Committee, V.B. Bodelan, acquainted me with the fact that partners in the agroindustrial complex are beginning to be attracted to engaging in production operations within the rayon.

In Kiliyskiy Rayon, 12,500 hectares of arable land have been set aside for corn. This crop is under irrigation on 5,000 hectares. All of the fields have been assigned to contractual collectives. The plans call for 61 quintals of grain to be obtained per hectare. It has become possible to achieve this goal owing to the fact that in recent years improvements have taken place in the culture of farming, especially irrigation farming. In 1983, 44 quintals of grain per hectare were obtained here.

More than 300,000 hectares have already been sown in corn in Odessa Oblast. Moreover, the sowing periods have been shortened. Nevertheless, even under these conditions a preference is still being shown for the quality of the work. Indeed the principal corn area is being cultivated using the industrial technology. The farmers are adhering to the technological discipline in a very strict manner. All of the machine operators had to be recertified prior to commencing the sowing work or preparing the soil. In short, the fate of the corn, the gross grain yield of which has been raised to no less than 1 million tons, has been placed in reliable hands.

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#### BRIEFS

CORN SOWING OPERATIONS--Odessa, 24 Apr--The machine operators have moved their sowing units out onto the corn fields. At the present time, they are sowing those fields the yields from which will be used for feed. The seed is being sown with a protective film in the hope that the soil will warm up during the next 6-8 days. The sowing work is being carried out in an efficient manner in Bolgradskiy Rayon, where the industrial technology for cultivating corn was mastered for the very first time. The workers in Tatarbunarskiy, Savranskiy, Lyubashevskiy and other rayons have joined harmoniously in the corn sowing operations. The seed is being placed in the soil together with fertilizer.

/Excerpts//Moscow SEL'SKAYA ZHIZN' in Russian 25 Apr 84 p 1/ 7026

GRAIN CORN PLAN--Kirovograd, 1 May--One million tons -- such is the grain corn yield which not only the initiators of a special undertaking in Dnepropetrovsk Oblast are striving to achieve in the Ukraine, but also their followers in Kirovograd and Odessa oblasts. In undertaking high socialist obligations for producing the grain of this valuable food and forage crop, they concluded a collective contract for a competition and collaboration. The corn growers resolved to achieve a high final result -- to obtain no less than 40 quintals of grain from each hectare of non-irrigated land and 70-80 quintals from irrigated land. Employing a leading technology and a collective contract, the farmers in both oblasts are carrying out the mass sowing of corn during this holiday period. /by\_N. Ivanchenko/ /Excerpts/ /Moscow SEL'SKAYA ZHIZN' in Russian 2 May 84 p 3/ 7026

TWO MILLION TONS--Odessa, 8 May--The farmers in Odessa and Kirovograd oblasts are bound together by many years of friendship. Each year they sign an agreement calling for a socialist competition. This year the representatives of the two oblasts gathered together in Odessa for the purpose of signing the new document. The workers in both oblasts vowed to obtain 1 million tons of grain corn in each oblast. The sowing of this valuable crop is in full swing at the present time on the fields in these oblasts. \_by\_A. Soldarskiy/ \_Text/ \_Moscow SEL'SKAYA ZHIZN' in Russian 9 May 84 p 1/ 7026

EARLY CORN SOWING--Zhitomir, 4 May--At a time when the southern part of the republic was still engaged in the mass sowing of corn for grain, here in the forest district a number of farms have already completed this work. Included among them are the machine operators of the contractual team of M. Oleksiychuk at the Kolkhoz imeni XXII S"yezda KPAA in Zhitomirskiy Rayon, who are growing

corn on 250 hectares. The early sowing has become possible as a result of incrustation of the seed. It was tested for the first time last year and produced a grain yield of 54 quintals per hectare with minimal expenditures of labor. /by S. Luzgan/ /Text/ /Moscow SEL'SKAYA ZHIZN' in Russian 5 May 84 p 1/ 7026

KHERSON EXPERIMENT--In particular, we were interested in an experiment carried out by the workers in Kherson Oblast, who are harvesting ears of a raised moisture content and thereafter milling and storing them in special containers. We are striving to eliminate the great differences in cropping power. /by

V. Zhabko/ /Excerpt/ /Moscow SEL'SKAYA ZHIZN' in Russian 26 Apr 84 p 2/7026

#### LIVESTOCK FEED PROCUREMENT

DEPUTY MINISTER REVIEWS GREEN FEED CROP PROGRESS

Moscow SEL'SKAYA ZHIZN' in Russian 14 Jul 84 p 1

/Article by A.T. Gulenko, Deputy Minister of Agriculture for the USSR: "For Feed Just As For Grain"/

Text/ As already reported, during a regular session of the Politburo of the CPSU Central Committee, information was provided on the course of feed procurement operations. Emphasis was placed upon the need for organizing the work in a manner such that each animal husbandry farm is beyond any doubt supplied with adequate quantities of coarse and succulent feed. In this article, in response to a request by a TASS correspondent, USSR Deputy Ministry of Agriculture A.T. Gulenko discusses the peculiarities of this year's green harvest at kelkhozes and sovkhozes throughout the country.

The USSR Ministry of Agriculture and its organs in the various areas are undertaking measures aimed at achieving more efficient organization for the busy hay harvesting period. Many examples could be cited showing how it is possible to lay away feed rapidly and in a high quality manner in all types of weather conditions. For example, this work is organized very well on farms in the Baltic republics. In Lithuania, for example, the first cutting of grass is being completed successfully, the plan for laying in haylage has been fulfilled and despite frequent rainfall the plan for laying in hay is nearing completion.

Many farms in the Ukraine, Belorussia, Moscow, Leningrad and Gorkiy oblasts and in a number of other regions are confidently augmenting their feed supplies.

Success is being promoted here by a complex of measures. Among them -- the use of equipment in two shifts and skilful maneuvering of the equipment. In particular, the agricultural machines are used for procuring hay or haylage depending upon the weather conditions. Many sovkhozes and kolkhozes are employing progressive procurement methods -- such as the pressing of the hay and drying it with the aid of forced ventilation.

Experience reveals that these and other leading methods for augmenting the feed supplies are being introduced effectively mainly on farms which are making skilful use of collective contracts. Such contracts are being used for the green harvest by 32,000 detachments and teams. This is making it possible for workers in the agricultural industry to achieve high final results with minimal expenditures.

Special monthly campaigns for procuring feed for public animal husbandry are proving to be of assistance in accelerating the harvest tempo. Moreover, a great amount of attention is being given to organizing haying operations on so-called unsuitable lands.

Unfortunately however, efficient use is not being made in all areas of the available reserves and potential. The haying work is being carried out in an unsatisfactory manner in Armenia, Georgia, Kirghizia, Uzbekistan, Yaroslavl and Novgorod oblasts and in some other regions of the country. A requirement exists here for adopting leading experience and eliminating this backwardness as rapidly as possible. And many reserves are available in the various areas.

Importance is attached to completing the first cutting of grasses rapidly in all areas and thereafter, without delay, carrying out a complex of agrotechnical measures for obtaining full-weight secondary and subsequent cuttings.

The harvest period for silage crops is approaching, the areas of which have been expanded this year, and also for feed root crops. As required, waterings and top dressings must be organized for the crops in the interest of obtaining high yields.

Somewhat alarming is the fact that preparation of the silage harvesting combines is being carried out slowly in a number of regions throughout the country. It turns out that this is the result of insufficient deliveries of component parts and spare parts. And no delay can be tolerated here waiting for the situation to be corrected; the harvest operations will not wait.

The green harvest, similar to the harvest of grain crops, confronts the agroprom workers with a very strict examination. And all available measures must be employed if this examination is to be passed with a grade of "excellent and if improvements are to be achieved in the feed procurement rates and in the quality of the feed.

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#### LIVESTOCK FEED PROCUREMENT

BELORUSSIAN FEED PROCUREMENT PLANS

Minsk SEL'SKOYE KHOZYAYSTVO BELORUSSII in Russian No 5, May 84 pp 2-3

[Article: "The Busy Season"]

[Excerpts] This year the kolkhozes and sovkhozes of the republic have to accomplish great tasks in the area of fodder production. In all in fodder units it is necessary to procure 18 million tons of fodders, or 35 percent more that was procured in 1983. It is necessary to lay in more grass forage, to produce and use efficiently 40,475,000 tons of green fodders (25 percent more than last year) and to fulfill the plans on the allocation for fodder of potatoes, root crops and grain fodder. And, of course, it is necessary to increase significantly the quality of fodders. It is necessary to see to it that all the hay, haylage, silage and grass meal, which are being procured, would be mainly of the first and second classes.

Are these indicators achievable? Entirely. To achieve them means to make a worthy contribution to the implementation of the Food Program, the first results of the work on the fulfillment of which were discussed at the end of March of this year at the All-Union Economic Conference on Problems of the Agro-Industrial Complex.

Now it is important to consolidate and develop further the emerged positive changes in animal husbandry. But fodders, fodders and still more fodders are needed for this. In 1983 more of them were also laid in in our republic, which had a positive influence on the conduct of affairs in animal husbandry and paid for itself by the increase of the production of milk and meat. Nothing, of course, comes by itself. They did much at the kolkhozes and sovkhozes in order to increase the harvests of fodders. Thus, when elaborating the questions of the management of field fodder production in 1983 the improvement of the structure of the fodder field by means of the increase of the area of perennial grasses (by 55,000 hectares) and the increase in them of the proportion of leguminous and leguminous-cereal grasses (to 61 percent, as against 40 percent in 1982), as well as leguminous grasses and their mixes with cereal grasses in the group of annual grasses (to 69 percent instead of 59 percent) was envisaged. The areas under leguminous grasses in the group of cereal grasses and under corn and fodder root crops were enlarged. Intermediate and secondary sowings, as was also noted, were located on an area of 510,000 hectares, which comes to 9 percent of the plowland as against 7 percent in 1982 (one hectare in five of this area was sown with cruciferous crops).

Unfortunately, a large group of farms and rayons cannot yet boast of successes in fodder production and the good organization of the work in this area. Here are far from pleasing results which in no case should be repeated this year. At the kolkhozes and sovkhozes of Gorodokskiy, Loyevskiy, Starodørozhskiy, Postavskiy and other rayons they obtained less than 140 quintals of green mass of perennial grasses per hectare. The main reason for this is low technological discipline.

Pasture lands are playing a special role in the creation of a firm fodder base. But at many farms they have not yet become the main source of inexpensive fodders, they are taking poor care of them and are fertilizing them poorly. The plans of the radical improvement of meadows and pastures at the farms of Berezovskiy, Lelchitskiy and Ivyevskiy rayons, of the change of land back to meadows in Khoynikskiy and Klimovichskiy rayons and of surface improvement for Vitebsk Oblast as a whole are not being fulfilled. You will not make up for the losses from this by anything.

Time does not wait. Now, with the arrival of the haying season, it is necessary to display the maximum of good organization, discipline and a sense of labor duty. It has already been stated above, what gains it is necessary to achieve in fodder production. In order to ensure the sound procurement of fodders, it is necessary to perform it with the strict observance of the technology and the times of the harvesting of grasses. For it is regrettable, but is a fact: due to the violation of the deadlines of the harvesting, especially the delay with the start of the work last year in Mogilev, Gomel and other oblasts a significant amount of hay, haylage and silage of low quality was procured. It is necessary to see to it that all the grasses would be moved at the phases of the highest content in them of nutrients and vitamins. It is important not to be late with the top dressing of the harvested lands, in order to obtain a second, or else a third crop.

It must never be allowed, as happens at times, when the mowed grasses overdry and the hay loses quality. Such instances must be regarded as a sign of gross mismanagement.

In order to ensure the strict monitoring of the technology of the procurement of fodders, their processing and preparation, much depends on the fodder laboratories, which have been set up in the rayons, and the operational control centers at kolkhozes and sovkhozes. They should organize the timely and high quality study of all fodders during their procurement and their complete analysis during the period of use.

Must it be proven, of what great importance the use in fodder production of advanced technologies, such as, for example, the finishing of the drying of hay by the method of active ventilation, its baling and others, is?

It is necessary to see to it that none of the haylage towers would be empty. For they were built not for decoration. It must not be forgotten that each tower costs 30,000-40,000 rubles. Tower haylage, if it has been laid in according to all the rules, is a high quality fodder. The haylage towers must be used practically. For their filling the kolkhozes and sovkhozes should earmark mowing areas at the rate of 100 hectares per tower.

This year all the opportunities exist to supplement the fodder reserves. The soil fertility at the majority of farms is making it possible to increase the harvest of hay to 50-60 quintals per hectare and of green mass to 250-300 quintals per hectare and more. The fact that the further improvement of the structure of the fodder field has been carried out at the kolkhozes and sovkhozes, should be one of the components of the fulfillment of the outlined plans. Unfortunately, at many farms such a problem as the high quality improvement of the botantical composition of grass stands is still being poorly solved. The sowings of clover are being enlarged slowly, especially at the kolkhozes and sovkhozes of Drogichinskiy, Braginskiy, Chausskiy and other rayons.

The fact that this year significantly more hay fields and pastures, which have been improved by means of reconversion into meadows, are being used, will also play a significant role in the supplementing of fodder resources. The application per hectare of fodder lands of not less than 200 kg of active ingredient of mineral fertilizers, including 240 kg per hectare of improved pastures, is envisaged by the plans. The task of the agrochemical service and the specialists of farms is to apply such a dose.

It is necessary to ensure the proper use of pastures.

Considerable areas are now planted with corn. This crop in case of its skill-ful cultivation under the conditions of our republic yields quite good harvests and is a good fodder. It is necessary to observe strictly the technology of the cultivation and harvesting (at the phase of milky-wax ripeness) of corn, which has been recommended by scientists.

One must not allow losses on the fields which are taken up by fodder root crops. This year everything necessary must be done into order to obtain not less than 350-370 quintals of them per hectare.

As compared with last year by this season the fleet of fodder-harvesting machines has been significantly reinforced. How is it to be used better? This depends in many ways on how the labor of the machine operators will be organized. At the leading farms the collective contract is being used in fodder production, and it must be disseminated more extensively. This advanced form of the organization of work is yielding a good impact at the Kolkhoz imeni Lenin of Dzershinskiy Rayon. A mechanized cost accounting brigade for fodder production has been set up here. An area of fodder fields and the necessary equipment are attached to the brigade. Labor is paid for according to the end results, subject to the quantity and quality of the products being produced.

It is very important also to make the labor of the links, which are engaged in the delivery of green fodders to the farms, dependent on the end result. Specialists should manage the work of these links.

More drying units for the production of vitamin grass meal will now be used at the kolkhozes and sovkhozes of the republic. They should operate with a full load.

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#### LIVESTOCK FEED PROCUREMENT

UDC 636.085.55

# ORGANIZATIONAL PROBLEMS IN MIXED FEED INDUSTRY DETAILED

Moscow MUKOMOL'NO-ELEVATORNAYA I KOMBIKORMOVAYA PROMYSHLENNOST' in Russian No 4, Apr 84 pp 4-8

[Article by E. Berkauskas, chief of Main Administration of Mixed Feed Industry, USSR Ministry of Procurement: "Reserves for Increasing Production and Improving Quality of Mixed Feeds"]

[Text] The work results in the period following the adoption of the USSR Food Program atto to the act that workers of the mixed feed industry of the USSR Ministry of Procurement as partners of the working people of rural localities understand the full responsibility of fulfillment of the task set before them. The collectives of enterprises of the ministries of procurement of all the union republics are successfully fulfilling socialist commitments for ahead-of-schedule completion of annual and five-year plans. In the 3 years of the present five-year plan 3.4 million tons of mixed feeds were produced above plan, including 2.7 million tons for poultry. In the 3rd year of the five-year plan, plans were fulfilled for the production of loose and granulated mixed feeds, protein and vitamin supplements, premixes and carbamide concentrate.

Major responsible tasks stemming from the decisions of the May (1982), December (1983) and the extraordinary February (1984) plenums of the CPSU Central Committee have to be solved by workers of the mixed feed industry in the remaining years of the five-year plan. It is necessary to ensure stable work on the part of the industry for the purpose of fully satisfying the needs of animal-husbandry workers and to regularly supply mixed feeds from selected high—quality stocks. The entire attention of collectives of mixed feed enterprises should be concentrated on raising efficiency of production so that each kilogram of produced output provides maximum yield in animal husbandry.

The successful solution of this task is possible under the condition of accelerated introduction of achievements of scientific-technical progress and widescale carrying out of work relating to modernization and reequipment of existing enterprises as well as timely utilization of planned capacities.

Analysis of utilization of planned capacities of new enterprises of the mixed feed industry during the period of 1976-1983 shows that certain union-republic ministries have failed to organize this work on the necessary level. For

example, the collective of the mixed feed plant in Lipetsk of the RSFSR Ministry of Procurement took 3.5 years to learn to use its full capacity and the one in Denezhnikovo in Ryazan Oblast—almost 2.5 years. The capacity of the mixed feed plants at Kulindorovo in Odessa Oblast and in Belovody Village in Sumy Oblast of the Ukrainian SSR Ministry of Procurement took 23 months to be fully utilized, that of the mixed feed plant in Temirtau of the Kazakh SSR Ministry of Procurement—30 months, that in Rybach'ye of the Kirghiz SSR Ministry of Procurement—25 months. Reduction of the time of assimilating capacity to 9-12 months, as determined by norms, would have made it possible to reduce the existing shortages of capacities and speed up the creation of necessary conditions for raising the industry's operational efficiency and further improving the quality of mixed feeds.

Last year the state of affairs relating to assimilation of the planned capacities of mixed feed enterprises improved somewhat. Why is it that some enterprises are still slow in assimilating planned capacities?

The right answer to this question can be obtained if we turn to the know-how of leading enterprises, which under identical conditions of operation have assimilated planned capacities on time or ahead of schedule. Such enterprises constitute the majority. Generalization of the know-how of organizing assimilation of capacities at these enterprises permits the elucidation of certain basic factors by reason of which capacities at mixed feed plants re not assimilated on time.

First of all, it involves the underestimation of the role and responsibility of the orderer by certain procurement ministries of union republics, oblast administrations for flour milling and grain products and heads of enterprises. The superficial and sometimes even a formal attitude by the orderer to the selection and planning of a facility results in the fact that all questions of selection of a construction site and selection of the commission for planning and development of the project are turned over for solution by planners. At first glance this has no direct bearing on the assimilation of planned capacity, but not only the time of capacity assimilation but also the operation of the future enterprise largely depends on a correct and timely solution of these questions.

Cases are to be found where enterprises are built at a location with low availability of manpower resources or a low need for mixed feeds, that is the basic users of the product are located not only outside the rayon but sometimes even outside the oblast. It is a great pity that the erroneousness of such a choice begins to be understood by the client only when he begins assimilating capacity.

Let us cite such an example. According to the assignment given by the Tula Administration of Flour Milling and Grain Products, a mixed feed plant was built at Gorbachevo with a productive capacity of 500 tons per day. Its technology was planned for the manufacture of mixed feed for cattle. At the same time, in working on the assignment of planning and selection of a construction site, the administration of flour milling and grain products should have known that this plant would have to sell all its products to a pig-raising complex. Only

after the plant had been built did disturbing signals appear. The oblast administration of flour milling and grain products even submitted technical and economic calculations substantiating the need for the plant for handling another technology.

It is impossible to understand or justify the actions of certain flour milling and grain product associations or republic ministries assuming the role of a client where they together with planning institutes sign planning targets containing illegally hiked above norm requirements of the local organizations coordinating the plan. The satisfaction of such requirements increases construction costs and reduces the total volume of funds allocated for the development of the material-technical base. An order on this question was issued by the USSR Ministry of Procurement forbidding clients to coordinate and accept unfounded requirements of local organizations. But certain ministries, for example, those of Belorussian SSR and Kazakh SSR, not without the participation of the Minsk affiliate of TsNIIPZP [Central Scientific-Research and Planning Institute for Grain Products and Gosniisredazpromzernoproyekt [State Scientific Research Institute for Design of Central Asian Grain Industry Enterprises]took the liberty of increasing significantly construction cost for the sake of satisfying the unfounded requirements of local organizations. Following a review of the USSR Ministry of Procurement, the conditions were reviewed and reconciled for engineering support of flour milling and grain product combines at Klimovichi in Mogilev Oblast and Tyulkubass in Chimkent Oblast, as a result of which the estimated construction cost of these facilities was significantly reduced.

One should more responsibly and more economically approach the expenditure of state funds earmarked for the development of the material-technical base. The decisions of the November (1982) Plenum of the CPSU Central Committee put under obligation in this regard not only builders but also clients. Everyone should know this who puts his signature on documents dealing with the utilization of state capital investment.

A most important stage on which the operational potentialities of a plant largely depend and to which the client should pay special attention and interest is working out of the plan.

Advanced know-how shows that in most cases where the client throughout the entire period of planning works in close working contact with the planning institutes and presents his requirements in a timely and qualified way, the projected capacity of new enterprises is assimilated ahead of schedule, and they operate stably. At the same time, there are still many cases where the client presents his proposals after the working plan has already been prepared or at the time of construction, that is, when it is forbidden both for the client and for planning institutes to submit any sort of changes.

Cases are also frequent where the client's proposals relating to a change of solution are not sufficiently well founded, not specific, do not take into account the stock of series-produced equipment and involve considerable reworking of the plan, increasing the cost and duration of construction.

For example, the RSFSR Ministry of Procurement and the Leningrad Administration of Flour Milling and Grain Products began to submit proposals on changing plan

solutions for the construction of a mixed feed plant in Volosovo a year after the start of construction and for the construction of Luga Mixed Feed Plant 2 years after the start of construction. The Ukrainian SSR Ministry of Procurement examined the plan for Borispol Mixed Feed Plant only after the blueprints had already been completed.

Positive experience of relations between client and planning institutes is to be found in the work of TsNIIPromzernoproyekt with the RSFSR Ministry of Procurement and the Moscow Oblast Administration of Milled and Hulled Products, Kharkov's Promzernoproyekt with the procurement ministries of "krainian SSR and Lithuanian SSR, Rostov's Promzernoproyekt with the Georgian USSR Ministry of Procurement, Rostov and Stavropol administration of milled and hulled products and Minsk affiliate of TsNIIPZP with the Belorussiaan SSR Ministry of Procurement. As a result of such work, mixed feed enterprises in Bolshevo and Ramenskoye of Moscow Oblast, Ivano-Frankovsk of Ukrainian SSR, Alitus of Lithuanian SSR, Verin Talin of Armenian SSR, Ipatovo, Pukhovichi and Glubokoye of Belorussian SSR are generously sharing advanced know-how.

At the same time, advanced know-how and the achievements of science, technology and practical personnel are very slow in being introduced into new plans of mixed feed enterprises, and the complaints made by personnel of the industry are justified. Many defects are still to be found in planning. Many questions have also to be solved in regard to improving the quality and reliability of produced equipment, although practice has shown that under identical conditions and equipment, one plant may assimilate in good time capacity and work stably, while another next to it—quite unsatisfactorily. This is because in the first case cadre training and responsibility are much higher.

One of the reasons for slow assimilation of planned capacities is low-skilled, undemanding and unprincipled operation of technical surveillance on the part of the client and the author's surveillance by the planning institute during the period of construction of an enterprise, installation and adjustment of equipment and acceptance of facilities for operation.

A characteristic feature of all mixed feed plants assimilating capacity in good time is that qualified technical surveillance was carried out in the process of planning and construction and flour milling and grain product administrations and procurement ministries of union republic constantly provided practical aid without restricting themselves to waiting for construction to be completed. Among such enterprises, there should be included the mixed feed plant in Skopin of Ryazan Oblast, Ivano-Frankovsk and Uzhgorod of Belorussian SSR, Alitus of Lithuanian SSR and others. The heads of these enterprises from the very beginning deeply realized the main thing-that oversights at the time of planning and construction would require a dear price especially in the initial period of the new enterprise's operation. Procurement ministries of union republics and oblast administrations in whose charge these enterprises were built devoted special attention to the selection of personnel for technical surveillance. They became highly qualified specialists and experienced production people for which the necessary conditions were immediately created for keeping them at these enterprises after startup.

Sometimes the role and responsibility of author's inspection [avtorskiy nadzor] is also underestimated. For example, at a mixed feed plant in Yuzhno-Sakhalinsk, builders also displayed faulty production-stair landings were higher or lower than the floor, while the representative of Novosibirsk Promzernoproyekt Institute, in exercising author's inspection, assumed a passive position, did not insist in time that this defect be eliminated.

Cases are frequent where in acceptance of mixed feed plants with unfinished work for operation, the representative of the planning institute is among the first to sign the certificate of the State Commission and, in rare cases, namely because of unfinished work, refuses to accept the plant for operation.

As reported in the press, the Politburo of the CPSU Central Committee examined the question of gross violations of state discipline in the planning construction and operation of facilities of production or social-cultural type in Volgodonsk of Rostov Oblast. Heads of various departments and planning and construction organizations were made strictly accountable for poor control over the quality of planning estimates, work progress, lack of display of requisite demand and permitted damage to the state. This should serve as a lesson to everyone.

Procurement ministries of union republic, administration of flour milling and grain products should pay special attention to raising the responsibility and principled character of members of State Accepting Commissions. Unfortunately, they all still allow cases to occur where State Acceptance Commissions do not always objectively approach the evaluation of readiness of newly started-up enterprises, agree to compromise with construction organizations and believe their promises to eliminate defects after signing of the certificate.

An example of the unprincipled attitude of the State Acceptance Commission is the turning over for operation of a mixed feed plant in Shurchi of Uzbek SSR. After presentation of the report on acceptance of the plant for operation according to the unapproved certificate of 1 October 1982, a check disclosed the existence of a considerable number of unfinished items that made impossible to produce mixed feed. All state commissions and especially procurement ministries and milled-and-hulled product administrations well know that without attainment of the prescribed level of production of mixed feeds for poultry in granulated form a mixed feed plant cannot be accepted for operation. But the Uzbek SSR Ministry of Procurement took upon itself not to take this into consideration. For this reason the USSR Ministry of Procurement was obliged to countermand the illegal startup. A similar situation occurred with respect to acceptance for operation of a mixed feed plant in the city of Lesozavodsk of Maritime Kray and those of Belgorod of Amur Oblast and Semenovskiy of Gorkiy Oblast. Here there was a lapse of 4-6 months prior to the start of production output after signing of the acceptance certificates for the elimination of the defects.

In the fourth quarter of last year, all the members of the State Commission except for the chairman signed a certificate of acceptance for operation of a mixed feed plant with a productive capacity of 630 tons per day in Kirovabad of Azerbaijan SSR. In the course of verification it turned out that on the

day of the certificate's signing, manufacture was started of the necessary production and more than 200 defects were established. Some of them were qualified as unfinished by construction-installation workers. One can imagine what a fate would have awaited the production personnel during the period of assimilation of capacity if the plant had been accepted for operation in such a condition.

Untimely cadre selection and training both in the prestartup period and in the period of assimilation of capacity influences extremely negatively the period of time of assimilation of planned capacities.

The client is obliged to begin cadre staffing and training 2 years prior to operation of an enterprise. In this connection, no less than half of the total number of personnel have to be made available no later than 3 months prior to having the enterprise go into operation and 80 percent of the trained personnel by the startup day.

Deeply understanding the importance of timely selection and training of personnel for the purpose of ensuring stable operation of the future enterprise, some flour milling and grain products administrations of the procurement ministries of the RSFSR and Ukrainian SSR, the procurement ministries of Belorussian SSR, Georgian SSR, Latvian SSR, Lithuanian SSR and several others act with great responsibility toward this work.

The mixed feed plant in Pukhovichi of Belorussian SSR, assimilated capacity on schedule and now is operating successfully. The staffing of personnel at this plant was started long before it went into operation. Training of production personnel was conducted by means of theoretical training and probational work at workplaces at mixed feed plants of the same type operating in Loshnitsk, Baranovichi, Slutsk and elsewhere.

For the purpose of holding cadres the Belorussian SSR Ministry of Procurement concerned itself with the timely creation of the necessary conditions. The plant went into operation on I January 1981, while in 1979-1980 a sum of 330,000 rubles was transferred to Minsk Oblast Ispolkom for the construction of residential buildings, in 1981-1982--475,000 rubles and 40,000 rubles for the construction of nurseries were also transferred. The mixed feed plant in Abasha, Georgian SSR, went into operation in the fourth quarter of 1983 and was fully staffed with trained personnel by I November.

One month before the signing of the certificate of turning over for operation, the mixed feed plant in Alitus of Lithuanian SSR was 96-percent staffed with trained personnel and completely by the date of signing of the certificate.

But not all procurement ministries of union republics, flour milling and grain products administrations and heads of enterprises solve these problems on time. The extremely unsatisfactory situation in regard to cadre staffing and training in the 3 months prior to the startup of an enterprise occurred in Mirgorod, Serogozy and Belaya Krinitsa of Ukrainian SSR, Chelgashy of Kazakh SSR, Kondopoga of Karelian ASSR, Konosha of Arkhangelsk Oblast, Alatyr of Chuvash ASSR. And it is not surprising that here as well as in Podberezhye of Novgorod Oblast,

Kapchagay of Kazakh SSR and a number of other places, mixed feed plants are built at a distance from populated places without an integrated solution of social and living conditions, without taking into account the location of neighboring enterprises and other factors providing favorable conditions for capacity assimilation.

One of the conditions influencing holding of personnel and consequently the successful assimilation of projected capacities is leading construction of housing. Despite the established procedure providing for availability of housing at the time of startup of an enterprise, no housing had been constructed at the time of startup of enterprises in Pskov, Sukhinichi of Kaluga Oblast, Troitsk of Chelyabinsk Oblast, Konosha of Arkhangelsk Oblast and Bratsk of Irkutsk Oblast. Plants in Volosovo of Leningrad Oblast and Skopin in Ryazan Oblast were started up without children's preschool institutions. The question of housing at the mixed feed plant in Yuzhno-Sakhalinsk started up last year was unsatisfactorily resolved.

Analysis of reporting data shows that at some procurement ministries of union republics worker cadres are not trained for newly started up and existing mixed feed enterprises. The Azerbaijan SSR Ministry of Procurement during 1982 failed to train for this a single worker both with separation and without separation from production. In the past year the situation has not radically changed here.

Procurement ministries of Moldavian SSR, Tajik SSR, Turkmen SSR and Ukrainian SSR are unsatisfactorily engaged in training of worker cadres for the mixed feed industry, with few being trained with separation from production.

Graduates of vocational and technical schools are not being trained properly everywhere. Frequently, the necessary living conditions are not created for them. This results in large turnover. The large percentage of graduates of vocational and technical schools leaving mixed feed enterprises in Tajik SSR, Moldavian SSR, Kirghiz SSR, Kazakh SSR, Ukrainian SSR, Uzbek SSR and the RSFSR speak more eloquently than with words of the poor concern shown by managers of procurement ministries, flour milling and grain product administrations and enterprises for creation of necessary working and living conditions for the individual—the most valuable wealth of our society.

A creative work atmosphere in the collective and a complex of necessary conditions in production constitute the chief factor of reduction of cadre turnover and of raising of work efficiency.

A significant role in ensuring timely assimilation of projected capacity is played by monitoring and assistance to collectives of new enterprises on the part of procurement ministries of union republics and flour milling and grain product administrations employing an integrated approach to the solution of social questions of formation of labor collectives.

An old rule states: despite difficulties and cares, all the attention should be devoted to the newborn. This is paid back with interest, while that which is neglected cannot be made up. That is how it is with a new enterprise. From the first days of operation, there should be sensed consistent concern on the part of higher organization, especially in the matter of forming a collective. From the very beginning, there should be established for an enterprise a strenuous, but without fail a fulfillable production plan.

In its turn, all work of the collective must be aimed from the first days of operation not at redoing that which has been built or installed, as some people do this quite wrongly, but at the careful and insistent assimilation of what has been made. At the same time, production discipline, initial accounting, labor safety rules and fire prevention measures must be observed. The neglect of just a single factor brings about a difficult period of restoration.

During the initial period of operation, this procedure was violated at Kilyazin-skiy Mixed Feed Plant of the Azerbaijan SSR Ministry of Procurement. It would seem that a necessary conclusion should be made from this lesson. In the beginning of 1983, a mixed feed plant in Nakhichevan ASSR was turned over for operation, and for a year it was unrecognizable: a portion of the equipment was dismantled, a number of production lines were out of order, and safety labor conditions were not ensured.

A disgraceful situation was allowed to occur at Konosha Mixed Feed Plant in Arkhangelsk Oblast, where capacity was not assimilated in 20 months, work at the plant was permitted with gross violations of labor safety rules and fire-prevention security, technology, accounting, production and labor discipline.

It is possible to cite similar examples of unsatisfactory assistance and control on the part of procurement ministries of union republics. This includes Rybachye Mixed Feed Plant in Kirghiz SSR, where for 5 years following startup the shop of preliminary mixtures was not utilized, Verkhovye Mixed Feed Plant in Orlov Oblast and Cherdakly in Ulyanovsk Oblast.

Such examples are the result of a wrong attitude to the formation of the collective during the period of capacity assimilation, a low level of exacting demands on the management of enterprises for violations of discipline and mismanagement. The most intent attention should be given to the creation of a highly moral and conscientious climate among collectives of new enterprises. Lapses in the inculcation of cadre responsibility during the initial period result in much damage.

The role of the enterprise head is very important at the stage of capacity assimilation and forming of a collective. His knowledge, competence, experience and ability to organize work as well as ideo-political conviction and capability to mobilize the collective for fulfillment of tasks are of decisive importance.

There are not many trained managers. Their selection and training and study of work and personal quality in the management of flour milling and grain procurement should be carried out on a daily basis. Course and instructional measures

should be systematically carried out for them in regard to bolstering qualifications and improving the style and methods of work with people and the necessary working and living conditions created. Constant comparison of each one's acts with the requirements of the decisions of the December (1983) and the extraordinary February (1984) plenums of the CPSU Central Committee, organization, efficiencey and discipline, a responsible attitude toward work and coordinated work of collectives of mixed feed enterporises, planning and scientific organizations will contribute to more successful fulfillment of the tasks set for the sector by the USSR Food Program.

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#### AGRO-ECONOMICS AND ORGANIZATION

# INTERRELATION OF PUBLIC, PRIVATE PLOT PRODUCTION EXAMINED

Moscow EKONOMIKA SEL'SKOGO KHOZAYSTVA in Russian No 3, Mar 84 pp 85-88

[Article by I. Bodur, deputy chairman of the Administration of the Moldavian Union of Consumer Cooperatives, and I. Krivchanskiy, chief of the Department for the Purchase and Sale of Animal Husbandry Products: "Questions of Integrating Public Production and Private Subsidiary Plots"]

[Text] In recent years in the country's agriculture, progress was seen in the distribution of basic sectors in zones and regions most favorable for their development. There was a significant increase in the number of specialized agricultural enterprises and animal husbandry compelxes with industrial production technologies. Agriculture is developing on the basis of interorganizational and intrasectorial specialization and concentration and agroindustrial integration. The process of integration has affected the interrelationships of public and private agricultural production, particularly in animal husbandry.

The effective functioning of private subsidiary plots (LPKh) depends upon the organizing and coordinating work of kolkhozes, sovkhozes and consumer cooperatives. A private plot is not an independent type of economic operation and caunot get along without the income and monetary means received from the basic work of its members and also not without the assets of public production. It needs to have cooperation with the public sector, which creates the conditions for production and to some extent the conditions for sale of that production. Without this cooperation, a private plot is not in a position to make use of its production opportunities.

Under today's conditions, the creation of the preconditions for integration of private plots and public production is related to a combination of substantial changes of an economic nature, the primary basis of which involves changes in material production, the division of labor and the level of its specialization and cooperation.

The nature of economic integration, cooperation of labor on the basis of its division among economic organizations, is planning and it has a juridical and economic basis that coordinates the activities of public farms and private plots in a joint porduction organization and in the creation of common services to attain superior results. such a form of cooperation is determined by economic factors requiring a new approach to the organization of agricultural production and a uniting of those efforts of economic organizations directed toward

the rational use of scientific and technical accomplishments, land, labor resources and the material-technical means for achieving rapid growth in the volume of production as well as an increase in its efficiency. This process is accompanied by an intensification of private-plot specialization, the emergence of new forms of interorganizational ties and changes in the structure and character of production.

The integration of public farms and private plots is developing on the basis of contractual, long-term, stable production-economic ties. Private plots thereby unite organically and cooperate with public farms. Thus, in using the family labor and operational structures of private plots to raise and fatten livestock belonging to public farms, which provide private plots with fodder, technical means and veterinary services, there is livestock production that it the property of the kolkhoz. The owner of the private plot receives a monetary reimbursement for the services rendered.

The integration of public and private organizations is also taking place with preservation of separate ownership, whereby livestock production represents a unified production process. Thus breeding livestock is kept on the kolkhoz, where its offspring is raised, then to be fattened on private plots on a contract basis with fodder provided by the public farm. The latter sells the fattened animals.

As was said earlier, in the process of their integration and cooperation, the economic interrelationships of public farms and private plots are based on the division of labor. Public farms provide breeding livestock and poultry, supply the private plots with material and technical resources, are responsible for construction, organize consultation and veterinary service, furnish feed, provide the opportunity to use pastures, sell the products of livestock raising, carry out mechanized work, cultivate the soil and provide the means of transportation. All other technological operations are performed by the owners of private plots.

Private economic operations are based on the technology of public operations, and therefore, it is possible to utilize the most up-to-date production methods and to extend their use widely. At the same time, this frees private plots from the need for advances on expenditures for private production or from having to cover these expenditures. These forms of operation, with specialization in various stages of production, complement one another.

As a whole, the existence of different stages of livestock production with varying degeees of profitability make it profitable for public farming.

The division of production and labor between public farming and private plots is also reflected in the fact that private plots are involved in a significant portion of those kinds of production that are carried out on a small scale by the public sector, with large labor expenditures and high production costs.

In recent years, measures have been taken to expand and intensify cooperation in our country. For this purpose, agricultural and other interested organizations have prepared and issued normative documents resulting from the resolution of the

CPSU Central Committee and the USSR Council of Ministries "On Additional Measures to Increase Agricultural Production on the Private Plots of Citizens."

Agricultural organizations, kolkhozes, sovkhozes and consumer cooperatives have accumulated positive experience in consolidating and extending the economic ties of public production with private plots. Not in all regions of the country, however, was their corresponding economic interrelationship established; there were deficiencies in the organization of production on private plots, which basically amounted to the following: the material and economic base of public farms and private plots was not prepared for large-scale integration and cooperation between them; there was a lack of fundamental scientific and methodical planning in this direction as well as methodical recommendations for rational specialization and cooperation in various regions of the country; the detailed interrelationship of private plots in integration and cooperation with public production was not worked out experimentally in specific regions; legislative documents were not supported by practical assistance; the general change of kolkhoz farmers to monetary wages deprived private plots of the chance for a broader management of fodder for domesticated animals and poultry; the fodder base of private plots was not prepared adequately; and there is no coordinating organ to provide organizational, methodical and practical help to private plots. The development of private plots is also being restrained by the fact that plots of land are limited, an urbanization of villages is taking place and there is still heavy migration of rural youth to the cities. There are other reasons specific for each region for the inadequate production on private plots.

An examination of the questions of the integration of public production and private plots made possible the conclusion that one cannot consider promising an over-all economic orientation of private plots toward the formation of centralized public production resources as their main function. In this case, a private plot would, in economic terms, be seen as subsidiary shop of a sovkhoz or kolkhoz, in which livestock is fattened under certain conditions and then turned over as the agricultural production of the enterprise. This form of economic interrelationships is useful and expedient and its development must be encouraged, provided that it does not lead to the replacement of the existing diversified form of private plots, supplying above all the needs of the population.

Direct integration of private plots and agricultural enterprises leads to the replacement of private plots with a cooperative organization, for which the functions and management conditions are fundamentally different.

Under such interrelationships, the main task of private plots is in producing not for the population carrying on the subsidiary organization but for an agricultural enterprise. In this case, production for the family then becomes secondary. In this case, there is a fundamental change in the management conditions of the subsidiary organization. Kolkhozes and sovkhozes are obliged to supply it almost totally with material resources, pay wages in the appropriate manner, etc.

At the present time, public farms do not have the means to meet all the needs of the population for young domesticated animals and poultry. As analyses have shown, the demand for young pigs and chicks is being met only halfway and the sale of young ducks and geese is weakly organized. It is estimated that the annual sale of piglets to the population must be increased to 20 million and that of chicks to 1 billion. And the sale of young animals should thereby be accompanied by the participation of consumer cooperatives. It is expedient to organize the division of labor in livestock production with consideration given to the special characteristics of particular regions of the country.

In their organizational and economic essence, the recently-created rayon agroindustrial associations [RAPO] are integrated administrative organs at the rayon level. The main task of these organs is to provide for a more efficient use of available resources, for a timely uncovering of reserves and for the creation of the most favorable conditions for the effective operation and development of agricultural enterprises.

However, the role and influence of these RAPO in the agricultural production of private plots manifests itself weakly. In our opinion, it is precisely the RAPO that can have a significant influence on increasing livestock production in this category of economic organizations.

An analysis of the economic interrelationships of public farms and private plots and their work experience show that cooperation and integration between them in agriculture production are relative in nature. At the present time and in the near future, in our opinion, there are insufficient prerequisites for replacing private plots with cooperative and integrated economic organizations.

Therefore, under today's conditions, when the country's agroindustrial complex is gradually becoming a huge integrated production system, in which agricultural is the leading element, it is important to have additional in-depth, comprehensive and practical analyses of the cooperation and integration of the public sector of production with private plots, and also important are such analyses of the principles of their manifestation and, on this basis, a determination of the basic directions for the development of this process, allowing the tasks in the country's food program to be implemented in an economically sound manner.

The industrialization of agricultural production presupposes more effective land use. Foremost in this regard is production on large tracts of land and more active utilization of the biological factors in plant growth. Industrial farming, therefore, will continue to occupy less than all agricultural land, and in this connection some lands fall out of agricultural use.

There are realtively many parcels of land in the country that are unsuitable for large-scale production or where large-scale production is inefficient. Under such conditions, it is necessary to bring about optimum land use with the objective that it will contribute to more efficient exploitation of all parcels on lands no longer in use by public enterprises. On such lands, it is expedient to create cooperatives for gardens and truck farming. In many regions of the country, the experience of the work of such cooperatives has already shown their useful role in intensifying land use. Along with vegetables, they also grow fodder crops and keep poultry, rabbits and bees.

We think that meat production can be increased primarily through the private plots of citizens who keep livestock. To do this, it is necessary to permit the

keeping and raising of livestock in numbers greater than those foreseen in the normative documents, under the condition that the livestock be fattened for sale to the state. Under these conditions, it is necessary to allocate to private plots additional parcels of 0.5 to 0.8 hectares from public lands.

To carry out successfully a full and consequential implementation of measures to develop private plots, it is essential to create a system of economic and organizational influence on this sector. In this system of the agricultural complex, there should be structural subdivisions for organizing agricultural production on private plots, but not as an administrative organ.

In the financial and operational plans of agricultural enterprises, it is necessary, in our opinion, to provide for cooperation between their production and that of private plots.

For private plots, it is essential to be certain of production and the sale of that production over a long time period. Close cooperation on the basis of the mutual interests of agricultural organs, consumer cooperatives and private plots (assistance in the acquisition of livestock, fodder seed, equipment and implements, etc.) will support that certainty.

In our opinion, it is expedient to review the measures that unjustifiably hinder the keeping of livestock in the outskirts of towns and settlements, to recommend to public enterprises that they provide more effective help to the population of towns and settlements in the raising of livestock and poultry, to aid in the organization of public (cooperative) farms, poultry yards, voluntary associations and societies, and to work out more effective measures to encourage the development of livestock raising for milk.

By virtue of their economic nature and the peculiarity of private ownership, private plots cannot be subject to direct planning by the state. Meanwhile, to ensure a balanced development of the entire agroindustrial complex, it is important to have reliable information on the volume, structure and marketability of the production of these enterprises, and also on their needs for producer goods.

The long-term experience of our country and other socialist countries allows one to conclude that for the foreseeable future large-scale agricultural production will be accompanied by small-scale production in individual areas as a complement to that large-scale production. This being the case, the development of private plots should be seen as a producer of agricultural products and be reflected in planning from the viewpoint of a more precise consideration of their needs and means.

In analyzing the work of private plots, one should consider their specific characteristics and make use of the intensive research in this sphere of economics, which is very sensitive to changes in agrarian policy. This determines the importance of the creation of an up-to-date system for forecasting the development of private plots. A reliable forecast of the volume and qualitative characteristics of production on private plots by regions of the country will permit more precise planning of marketable commodities and will make possible the preparation

of material balances and plans for the raising and processing of the products of animal husbandry. It is proper, however, to note that forecast of the development of private plots cannot be a smaller version of forecasting public production. It is therefore expedient to work out specific models for forecasting the development of private plots under consideration of their peculiarities in this form of production.

In considering questions of the future development of private plots, in our opinion, one can forecast many aspects of economic interrelationships upon which the effectiveness of their management depends.

Private plots are predominantly linked with the local market. This means that they should primarily contribute to supplying local marketable commoditeis. In this connection, the question of the use of production purchased there is significant. In consideration of the peculiarities of the commodity function or private plots, that is, their ties with the local market, it is expedient to use the largest part of commodity production directly in those oblasts and rayons where it is purchased and to ship surplus commodities as in interrepublic (interoblast) exchange. On the one hand, this will make it possible to improve the supplying of the population of the corresponding territories with livestock products and, on the other hand, it will increase the motivation of local organs to develop and support private plots.

Particularly significant from this point of view is the extension and improvement of the ties of private plots with consumer cooperatives that have the right to use products bought from the population to form commodity stocks and that also control the processing and trading base. Also significant are expanded opportunities for organizing counter trading and the supplying of rural residents with the production means needed to run a private plot. The ties of private plots with consumer cooperatives in regard to the sale of production and contractual relations are more promising than ties with agricultural enterprises, since consumer cooperatives perform not only purely commodity, trade and consumer functions but also production, procurement and supply functions.

In their organization, it is expedient to turn over to consumer cooperatives the entire volume of intervillage commodity transactions, including the commodity turnover of the subsidiary farms of enterprises.

The legal relations arising in the realm of private plots are many-faceted and regulated by a series of documents, formal normative acts, the bases of civil legislation of the USSR and the union republics on marriage and family, the civil codices and the codices of the laws on marriage and family of the union republics and the Model Rules of the kolkhoz.

It should, however, be noted that the normative documents do not provide special sections on private plots. Many of them are generally binding and some do not have definite subjects or factual participants of legal relations. Thus the Model Rules of the kohkhoz provides only one article (Article 22) on the private plot of a kolkhoz family (kolkhoz farmyard).

Since the legal regulation of questions concerning private plots is complex in nature and has a single object, it appears expedient to draft and pass a special

law on private plots of citizens and to unite all norms and resolutions in a generalizing codified legal doucment that would provide for a unified system of administering private plots by kolkhoz farmers, workers, and employees. In our opinion, it is essential to provide for additional guarantees to put into effect the rights of citizens in the area of the relations under consideration. There is also an urgent need for the adoption of a government act on the manner and conditions for marketing the production obtained from private plots.

In the complex nonmative-legal act on private plots, it is important not only to determine their place as a structural element in the socialist system of agriculture but also to formulate a general juridical concept that would become the theoretical basis for improving the legal regulation of agrarian relations arising in the area under analysis.

In our view, it is essential to organize a unified management of collective horticulture and market gardening, livestock-raising associations, amateur animal keeping and beekeeping. With this goal, it would be very expedient to create all-union, republic and oblast voluntary agriculture societies with the establishment of special sections for particular orientations of production operations.

To improve the planning and forecasting of the production of private plots and to strengthen policy effectiveness in regard to this category of farming, we propose the development and introduction of indicators characterizing the development of private plots into the annual reports of kolkhozes and sovkhozes, and we also propose improvement in the system of state statistics used to study the latter.

The task arises of revealing the juridical nature and of analyzing the content of the standard contract in effect for the raising and purchase of livestock and poultry and for the purchase of the surplus livestock production of private plots. The final objective of this agreement is to provide assistance in carrying out livestock production on private plots. In our view, it is not identical with the civil-legal purchase-sale agreement, as it primarily mediates livestock production itself. The main thing here is the appropriate help of agricultural enterprises in supplying the private plots of citizens with young livestock and poultry and fodder as well as in providing pastures and other services. Such help is the juridical obligation of the enterprises or organizations concluding the agreement. The existence of this import side of production in the agreement under consideration brings it near to the agreement contracting for agricultural production. At the same time, the latter is concluded only between socialist enterprises.

The standard contract for the purchase of the surplus agricultural production of the private plots of citizens and horticultural associations should be seen as a new independent type of contract previously not provided for by civil legislation.

Frequently, however, the contract system is applied formally. This mainly occurs because of an underestimation of the economic functions of a contract as a lever for the influence of planning on the rational organization of socialist production. The effectiveness of contracts can be increased on the basis of incentives and sanctions, the observance of the principle of equality of rights of the contracting parties and responsibility for implementation.

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# AGRO-ECONOMICS AND ORGANIZATION

## SELLING PRICE AS INDEX FOR EVALUATING PURCHASE PLAN

Moscow ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV in Russian No 4, Apr 84 pp 39-40

Article by P. Layko, Candidate of Economic Sciences and senior scientific worker at the Ukrainian Scientific Research Institute of Agricultural Economics and Organization imeni A.G. Shlikhter: "Are Sale Prices the Criteria?"

Text/ In the article by M. Borodayenko and R. Borodayenko, published in Issue No 3 for 1978 of the journal ZAKUPKI SEL'SKOKHOZYAYSTVENNYKH PRODUKTOV, the authors proposed a method for organizing a purchase plan for livestock products, in which the output is totally taken into account through an equivalent expenditure of feed units per quintal of output. However, not all of the specialists are in agreement with this approach. We wish to draw the attention of the readers to this article in which the authors prove the feasibility of another measurement unit for evaluating a purchase plan. This article is published in the form of a discussion.

During the course of developing and providing the kolkhozes, sovkhozes and inter-farm enterprises with a purchase plan for products, two principal methodological problems are resolved: 1) a measurement of the various types of products procured; 2) distribution of the purchase plan by types of products, while taking into account the production potential and the prospects for development of the agricultural enterprises. Let us pause to discuss the principal conditions for measuring agricultural products.

The importance attached to selecting the indicator for comparing various products derives from the fact that up until recently there have been various points of view and different methods employed for the problem of converting all types of products into a comparable factor. Some authors have proposed measuring the products in terms of feed units; others -- in a totally real product (conventional milk or meat); a third group -- in a monetary expression, using for this purpose the purchase, sales or accounting prices, regional output production cost; a fourth group -- by means of land capacity and so forth.

Of the methods mentioned for evaluating the purchase plans for products, we consider those to be correct which measure the various types of products based upon their cost and not with the assistance, for example, of feed units or the

useful qualities of the products. Only the abstract labor embodied and materialized in the product provides the basis for equality among products and makes them comparable. "It is precisely because of this factor that all goods, similar to cost, appear as materialized human labor and hence measurable" (K. Marks, KAPITAL).

Since when converting products into a aomparable form in terms of feed qualities, the expenditures for materialized and live labor for the production of goods are not taken into account, the feed units cannot be used as an equivalent. It is for this same reason that the method for evaluating a purchase plan by means of conventional meat, as proposed by M. Borodayenko and R. Borodayenko, will not stand up under criticism.

It is their opinion that the measurement factor is meat of all types. The normative expenditure of feed for the production of 1 quintal of meat of all types is accepted as being a unit. Other types of livestock products are equated to meat in accordance with appropriate coefficients. For example, in accordance with the feeding norms the consumption of feed per quintal of milk is 1.2 quintals and for a quintal of weight increase in cattle -- 8.5 quintals of feed units. The ratio for these values furnishes a coefficient of 0.14, according to which milk is conditionally converted to beef. Following this the purchase plan is evaluated in terms of the total product.

Here one tends to overlook the fact that the conversion of all types of livestock products into conventional meat, in accordance with the feed consumption norm for its production, is no different from a measurement of the products in pure feed units. In this instance there is only a change in the equivalent in which other products are expressed, with the feed units for the conventional milk. The mentioned procurement volume in output of conventional milk will be less than the procurement volume defined in feed units and it will be so to the same degree as the feed consumption norm for raising a quintal of meat used as the equivalent. In other words, the quotient obtained from dividing the procurement volume in feed units by the feed consumption norm for raising a quintal of meat is the procurement volume in conventional meat. It is easy to become convinced of this using a conditional or true example.

But if these methods for evaluating a purchase plan for livestock products differ among themselves, then all of the shortcomings inherent in evaluating a procurement plan in feed units are peculiar to evaluating a procurement plan in conventional meat, that is, if the one point of view is groundless then the other will also be. Moreover, an evaluation of the production activities of spetskhozes /specialized farms/ based upon the specialized raising of first heifers based upon conventional meat is not appropriate, since other indicators and not weight increases are important here.

Hence, only economically sound prices which reliably reflect the cost of the products can serve as sufficiently reliable measurement units for evaluating a purchase plan for agricultural products. However, even in this instance it is possible to use various evaluative categories: various types of prices or their principal formational factor -- production cost. Each of them typically has its own value for a purchase plan for 1 hectare of compared agricultural land. This is apparent in the data furnished in Table 1, which cites the purchase

plans for the principal types of livestock products at kolkhozes in one of the rayons in Nikolayev Oblast.

Table 1

Purchase Plan Level for Livestock Products Depending Upon the Evaluative Factor (rubles per hectare)

Production Specialization of Kolkhozes	Purchase Plan Evaluation According To:			
	Sales Prices	· Oblast Production Cost	Zonal Production Cost	Republic Production Cost
Dairy-grain	111	154	132	142
ibid	125	164	145	155
ibid	186	256	221	236
ibid	130	174	277	164
ibid	171	233	203	217
ibid	132	171	153	163
Cattle raising-grain	121	170	147	157
ibid	116	153	136	145
ibid	123	157	142	152
Fattening of cattle	536	796	673	719
Cattle raising-swine breeding	265	425	336	368
Cattle raising-sheep breeding	161	227	195	208

TABLE 2

Effectiveness of Evaluation of Purchase Plan for Livestock Products,

Computed Using Various Methods

Purchase Plan Evaluative Indicators	Range of Variation, rubles per hectare	Dispersion	Average Quadratic Deviation	Coefficient of Variation, in %
Sales prices	425	13153	114.7	63.3
Oblast production cost	642	29493	171.7	66.8
Zonal production cost	541	21496	146.6	63.3
Republic production cost	577	24946	157.9	66.9

However, based upon the data supplied in Table 1 it would be wrong to draw a conclusion as to which of the compared evaluative indicators furnishes a more objective evaluation of the purchase plan. In order to answer this question, it should be borne in mind that a summary description of the total value of a purchase plan level can be obtained with the aid of the following indicators of mathematical statistics: the scope of the variation, dispersion, average quadratic deviation and coefficient of variation. They describe the absolute and relative deviation of the purchase plan level from the average value.

The effectiveness of an evaluation of a purchase plan for livestock products, in accordance with the most frequently used indicators of variation, is shown in Table 2.

Based upon the comparison, the conclusion can be drawn that sales prices should be used as the basic evaluative indicator for the purchase plans for products and also for arranging the various types of products in a form suitable for comparison. Compared to a zonal production cost, they ensure a lesser degree of variation in the values for a procurement plan level by 21.5 percent, less dispersion -- 38.8 and a lesser degree of average quadratic deviation -- by 21.8 percent, with an equal coefficient of variation. This is borne out by V.I. Lenin's conclusion that the cost of a farm's products testifies to the scope of that farm, and not indirectly but rather directly and in all instances.

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## AGRO-ECONOMICS AND ORGANIZATION

PASKAR' REVIEWS APK DEVELOPMENT, DEFICIENCIES OF BRANCHES

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 24 May 84 p 2

[Article by P. Paskar', first deputy chairman of the USSR Gosplan: "By Way of Intensification"]

[Text] It has been 2 years since the May (1982) CPSU Central Committee Plenum approved the country's Food Program. And it is pleasing to note that the results of the work done during this time attest to significant and encouraging progress in the development of agriculture and other branches of the agroindustrial complex [APK].

Gross agricultural production in 1983 was 5 percent higher than in 1982. More grain, potatoes, sugar beets and vegetables were harvested. The cotton and flax harvests were not bad.

It is notable that all Union republics fulfilled the plans for State purchases of meat, milk and eggs.

For the first four and a half months of this year, State purchases of meat and poultry were 8 percent above the same period of last year, milk purchases were 6 percent greater and egg purchases 3 percent. The enterprises of the food, meat and dairy industries as well as fruit and vegetable growing and fishing overfulfilled the quarterly plans for the sale of production and increased the volume of that production.

The main thing is that it was possible to improve the population's supply of potatoes, vegetables, meat, milk and fish and to improve the quality and expand the assortment of a number of food commodities.

What has been achieved, certainly, is pleasing. But the Party's Central Committee demands sober assessments and a realistic approach to both successes and shortcomings as well as to the tasks of the future. In his speech at the All-Union Economic Conference on APK Problems that took place in March of this year, Comrade K.U. Chernenko, general secretary of the CPSU Central Committee and chairman of the USSR Supreme Soviet Presidium, stressed: "...with their own eyes, the Soviet people are being convinced that the Food Program worked out by the Party is gradually being put into practice. But this is only the beginning. Ahead are many great and outstanding deeds."

The APK branches have accumulated a tremendous production potential and there are qualified personnel and the essential resources. All of this must be put into more active operation to raise labor productivity significantly, to reduce production costs and to increase substantially the efficiency of agriculture, which, in the first 3 years of the current five-year plan, has given the State considerably less of various products than in the planned goals.

Today there is no industry sector whose work results would not in some way or other affect improvement in the work of APK branches.

One can. of course, speak of the need for a more rational and economical utilization of all material and technical means available in APK branches. And this is truly an important task. At the All-Union Economic Conference, it was noted with absolute justification that the process of intensification must not be reduced to a mere accumulation of funds. The main thing in intensification is to increase output per unit of existing and newly-added material and financial resources. The use of fixed capital in agriculture has its peculiarities. Here the process of creating output is not possible without the participation of land, the principal means of production. A significant proportion of capital investments is directed toward increasing its fertility. And the fact that we are still not getting the proper yield from these investments causes one to think seriously about several problems, the solution to which would noticeably increase the efficiency of land resources.

In the country's eastern regions alone, where more than 40 million hectares of sown grain crops are located, extremely small amounts of phosphate fertilizers are applied. Meanwhile, the application of even small doses of these fertilizers, 20 to 30 kg of nutritive substance per hectare, increases the grain harvest by as much as 2 qiuntals per hectare. Unfortunately, in 1982-1983, the requirements of kolkhozes and sovkhozes of this zone for phosphate fertilizers were not satisfied.

A topical question is the liming of fields. The areas of acidified soils are being reduced very slowly, and in some places they are even expanding. On such soils, mineral fertilizers work at only half strength and farmers do not obtain the expected effect from their application. The main reason for the inadequate pace of the work of liming and for the poor results is the lack and low quality of lime materials. Not meeting the targets are enterprises in the Ministry of Mineral Fertilizer Production, the USSR Ministry of the Construction Materials Industry, the USSR Ministry of Ferrous Metallurgy, the USSR Ministry of the Food Industry and others that are not fulfilling the plans for the delivery of chemical soil improvers.

Considerable losses to sown areas occur through pests, agricultural crop diseases and weeds. According to the calculations of specialists, this causes the country to lose several billion rubles in production every year. Herbicides, for example, are still used on only 41 percent of the area sown in legumes, 57 percent in sunflowers, 30 percent in potatoes and 62 percent in vegetables, sugar beets and cotton.

I believe that chemists still have considerable reserves. In 1983, the enterprises of the Ministry for Mineral Fertilizer Production increased their output by 4.2 million tons of nutritive substances over 1980. That is a solid increase. But it is not enough; in the future the production of mineral fertilizers must be increased at a faster rate.

Agricultural machine builders face particularly responsible assignments. There has been a certain amount of progress here as well. In the 11th Five-Year Plan, agriculture has received significantly greater deliveries of high-energy tractors and of motor vehicles with an increased carrying capacity, including dump trucks, highly productive self-propelled fodder harvesters, corn-harvesting machines and equipment for introducing soil-conserving and industrial methods. In recent years in the country, a powerful industry has been created for producing mixed feeds. A number of measures have been carried out to develop the production-technical base of the processing branches.

Today the value of fixed capital of APK branches exceeds R400 billion and amounts to more than 30 percent of all production funds in the national economy.

However, the technical level of agricultural machines, particularly tractors and combines, does not correspond to today's operational demands on manufacturing quality, reliability, productivity, energy consumption and metals—intensiveness. Many machines and pieces of equipment are inferior to the best foreign counterparts. According to an assessment by the commission of the State Committee for Science and Technology of the USSR Council of Ministers, a significant portion of agricultural equipment that is produced is in need of fundamental improvement or replacement through new and more progressive models.

The structure of delivered tractors, trucks and other machinery also fails to satisfy the demands of agricultrual production. Every year, agriculture is allocated two or three times the needed number of obsolete low-power "T-40" and "T-28Kh4" tractors. At the same time, the demand for "T-130," "K-701" and especially tractors of the MTZ type is not being satisfied.

The Ministry of Tractor and Agricultural Machine Building and the Ministry of Machine Building for Animal Husbandry and Fodder Production are slowing increasing the production of series of equipment for high-energy "K-700" and "T-150K" tractors. They are providing only about 70 machine titles of the 112 forseen.

I will present several examples that characterize the quality of machine building production. Last year, of 2,600 machines modified for swamp use that were checked, 386, or 15 percent, were returned by recipients from the State Committee for Agricultural Equipment to the Volgograd Tractor Plant. And at the Khersonskiy Combine Plant, they rejected 21 percent of the items examined.

The Food Program forsees that as early as this five-year plan, the output of meat from State raw-material resources should increase by 26 percent, that of butter by 16 percent and that of rich cheese by 31 percent. Production of other types of meat and dairy products is also to grow at a rapid rate. This can be done principally through the accelerated introduction of wasteless technology and highly productive up-to-date equipment.

In recent years, the processing branches of the APK received a large amount of new equipment but not in the volume and not of the quality necessary to solve successfully the set tasks.

It is enough to note that in the enterprises of the meat and dairy industry, for example, a large proportion of workers still does hand labor. At the same time, of the over-all volume of equipment supplied to this industry by the plants of the Ministry of Machine Building for Light and Food Industry and Household Appliances, mechanized flow lines account for little more than 8 percent.

The lack of essential equipment is seriously hampering the efficient use of raw materials. The introduction of a vacuum method of processing forcement in making sausage products would make it possible to increase the output of the finished product by 2 or 3 percent. Heretofore, however, domestic industry has not been producing such equipment.

Much milk is lost because a significant quantity of it is marketed in paper packages of the type "Tetra-Pak." The design of the automatic machines used to pour the milk into these packages is obsolete. At the Kolyndyanskiy Concentrate-Yeast Combine and the Gryazinskiy Food Combine, design shortcomings were revealed in washing machines, dryers and cooling bowls. For a long time, they had to be eliminated through the efforts of enterprise workers with the participation of specialists from the Shebekinskiy Machine Building Plant and the All-Union Scientific Research and Experimental-Design Institute of Production Machine Building. Such a situation can hardly be considered normal.

The low quality of the equipment produced and the slow rate of developing and producing new equipment is affecting the work of the macaroni, yeast, food-concentrates, margarine, grits and fish industries.

In making requests of machine builders who have been called upon to carry out the industrialization of the APK, one should not fail to mention the short-comings in the work of APK branches. By no means everything is good here with respect to the use of the existing material and technical potential. Processors need to put their own house in order.

For example, at the enterprises of the USSR Ministry of the Food Industry, planned capacities are at times still being developed only slowly and are being poorly utilized. According to data from the Central Statistical Administration, of 76 enterprises of the ministry that were introduced during the first 3 years of the 11th Five-Year Plan, planned capacities were not fully developed at

62 plants and factories. And this means thousands of tons of lost production.

The interests of socialist production urgently demand of everyone a fundamental change in the rate of agricultural intensification. This is dictated both by the growing demands of the Soviet people for food products and of domestic industry for raw materials and by the developing international situation. One should not forget that more and more often capitalist countries attempt to use trade in particular agricultural products for the purpose of putting political pressure on our country.

In this fourth year of the five-year plan, about R49 billion in capital investments are going into the development of APK branches. Investment has increased in the development of agricultural machine building, the production of mineral fertilizers, the construction of vegetable storehouses, refrigerators and enterprises for fodder production, and in further improvement of the social and cultural living and working conditions of APK workers. This obligates everyone involved in improving the operations of APK branches to multiply his efforts to implement the decisions of the 26th CPSU Congress and the USSR Food Program.

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## AGRICULTURAL MACHINERY

MECHANIZATION OF LIVESTOCK, FEED PRODUCTION EQUIPMENT DISCUSSED

Moscow EKONOMICHESKAYA GAZETA in Russian No 25, Jun 84 p 2

/Article by K.N. Belyak, minister of machine building for animal husbandry and feed production: "New Equipment for the Fields and Farms"/

Text/ The country's Food Program has confronted the machine builders with the task of completing for the most part the all-round mechanization of farming and animal husbandry prior to 1990. In view of this fact, five-year and annual plans have been prepared for the enterprises and associations of Minzhivmash /Ministry of Machine Building for Animal Husbandry and Fodder Production/.

The branch is following a firm program concerned with the development, production and deliveries of sets of machines and equipment for the all-round mechanization of feed procurements and preparation and the maintenance of livestock and poultry.

At the present time, 102 technological assemblies of different types are being prepared from serially produced equipment. By 1985 their number will have been increased to 133 and by the year 1990 -- to 147, which in the opinion of specialists will ensure an optimum level of mechanized operations in feed production and animal husbandry.

During an all-union economic conference held in late March to discuss the problems of the agroindustrial complex, mention was made of the positive improvements noted in the deliveries of machine building products to the rural areas, with problem areas also being singled out. We drew some very important conclusions from the criticism. The results of the conference were discussed by the board of Minzhivmash, by party organizations and during general meetings of production collectives. Each worker in our branch welcomed the words of Comrade K.U. Chernenko when he stated that the party views concern for agricultural development not only as an economic but also as a priority sociopolitical task.

Allow me to cite several figures on the equipment production volumes for animal husbandry and feed production. In 1984 the branch will supply the country's agriculture with 12,300 KSK-100 feed harvesting combines compared to 4,500 in 1980, 5,500 KPS-5G self-propelled mower-crushers (in 1980 -- 3,000), 8,500 PRP-1.6 roto-balers (in 1980 -- 5,000) and many other items of equipment roughly in the same progression. It bears mentioning that here we are speaking about only new and very modern equipment.

In 1984 the series production of highly productive pull-type KPKU-75 feed harvesting combines commenced at the Gomsel'mash Plant. In 1984, 7,000 of these machines will be produced and in 1985 -- 10,000. The production of the general purpose pull-type KPI-2.4 feed harvesting combine commenced in 1984 at the Belotserkovskiy Plant; this unit will be used on light contour tracts coupled with an MTZ-80 tractor.

All of this will make it possible during the current five-year plan to completely revive the production of feed harvesting machines. For the purpose of ensuring their continuous operation, special pull-type containers of the PSE-20, PSE-30 and PSE-40 types were created for transporting the crushed bulk. Measures are being taken to increase the production of haystack formers and haystack carriers.

A technology for preparing feed based upon straw that has been treated with alkali should prove to be of great assistance to the livestock breeders. The LOS-1 technological line was developed for this purpose using domestic equipment. Its series production is scheduled to commence in the near future.

Experience indicates that in the future extensive use will be made of the technologies available for processing pressed hay. Thus, in addition to the series production of the PRP-1.6 roto-baler, a pick-up baler is being created which will ensure the formation of rolls weighing up to 750 kilograms. For damp zones, such assemblies will be equipped with devices which will make it possible to apply chemical preservatives.

Minzhivmash has received a great amount of criticism with regard to the productivity and reliability of the equipment for haylage towers. This situation is being corrected. At the present time, loading and unloading units are being created which will have a productivity that is better by a factor of 1.5-2 than that of the units removed from production.

The country's kolkhozes and sovkhozes presently have approximately 2 million feed harvesting machines for carrying out feed procurement work. More than 1.5 million units of machines and equipment are in operation at livestock and poultry farms.

During this modern stage, the development of scientific-technical progress in machine building for animal husbandry and feed production has become a task of priority importance both for the branch NII's /scientific research institutes/ and KB's /design offices/ and the production associations and enterprises.

In carrying out this important work, a considerable role must be played by the implementation of an overall branch program aimed at raising the technical level and quality of the equipment to be produced during the 1983-1985 period, in conformity with which the plans call for substantial improvements to be carried out in the 145 machines in series production.

For example, an improvement in the self-propelled KSK-100 feed harvesting combine will make it possible, by 1985, to raise the mean cycles between failures, create good working conditions for the machine operators and lower the weight of the machine by one and a half tons. The value for the coefficient

of readiness for the KPS-5G mower-crusher is stabilizing and its weight has been reduced by 400 kilograms. The mean cycles between failures for the PS-1.6 pcik-up baler will be raised from 33 to 50 hours and its service life from 6 to 7 years. It will be equipped with a device for loading mineral fertilizers. A binding unit will ensure stable operations with all types of binding material.

The equipment used for milking, milk storage and applying liquid and solid organic fertilizers to the soil and also other items of equipment will undergo substantial changes.

The most labor-consuming operations on the farms -- issuing of feed and cleaning up the facilities. Here the livestock breeders will receive assistance in the form of general purpose feed distributor-mixers, produced in pull-type (RSP-10) and motor vehicle (ARS-10) variants. Machines are being developed for the transporting of mixed feeds which will have a carrying capacity of 15 and 25 tons and units for self-loading and unloading; these machines will be based upon use of the SIL-133 and KamAZ /Kamskiy Motor Vehicle Plant/ motor vehicles.

Equipment is being created for the processing and utilization of the waste products of animal husbandry which will ensure biological processing and the production of biofuel.

Poultry raising is a well developed and highly mechanized sub-branch of animal husbandry. The enterprises of our branch are serially producing batteries of cages for laying hens, young stock of egg strains and broilers. The production of automatic lines for the processing of eggs has been mastered; the lines have a productivity of 7,200 and 20,000 eggs per hour. In the future, the more labor-consuming operations associated with the loading of these machines will be carried out by robots. The automation of equipment control is being developed on a modern element base, with use being made of microprocessor equipment.

An improvement in the technical level of our output is directly and inseparably associated with the modernization of machine building production proper. Here the general trend has become all-round mechanization and automation.

At the present time, there are more than 100 automatic, semi-automatic and flow line-mechanized lines, 164 industrial robots and 1,500 automatic and semi-automatic machines in operation at Minshivmash plants. In all, more than 290 industrial robots with program control and 100 balanced manipulators will be placed in operation during this current five-year plan.

Technological processes which ensure economies in the use of labor and material resources will be introduced into operations on an extensive scale. Capabilities are being created for producing items out of metal powder that will make it possible, by 1990, to increase the volumes of their use in machines and equipment for animal husbandry and feed production by a factor of 5. An increase is taking place in the production of star wheels using the hot knurling method. The production of stampings is also being increased.

An important factor with regard to raising labor productivity is that of converting over to the brigade form for organizing and stimulating labor.

This year the number of brigades will exceed 6,000 and they will include 59 percent of all of the branch's workers. This process is continuing.

Greater attention is now being given at the enterprises to the cost accounting principles for work performed by brigades, with these principles serving to further promote improvements in labor productivity. The progressive forms for organizing brigades -- direct and complex -- will undergo further development.

For it is under the brigade system for organizing labor that new equipment is mastered more successfully and the planned labor intensiveness is achieved in a rapid manner.

Unfortunately, until recently not enough attention was given to such an important factor as production intensification. As a result, during the development of haystack carriers and haystack formers at the Syzran'sel'mash plant, the labor intensiveness during their development in production turned out to be higher than that planned by a factor of 2-3. A similar situation developed at the Kolomyyasel'mash plant in connection with the assignment of a new loader to production. Measures were undertaken in the mentioned and other specific cases. However, importance is attached to radically changing the attitude towards such an important indicator as planned labor intensiveness. Thus, consolidated norms were developed in the branch for the labor intensiveness required for developing a new product and also graphs for reaching the planned labor intensiveness.

The competition launched at enterprises of the branch under the slogan "For each machine -- a high technical level, outstanding quality, professional servicing and efficient use" will increase in intensity during 1984.

The obligations of many collectives call for an increase in the service life of agricultural machines and equipment of not less than 1 year compared to the norms.

Together with the entire country, the branch has entered a decisive phase in carrying out the plans of the 11th Five-Year Plan. The results of 3 years and 5 months reveal that our enterprise is on the whole observing the graph for the five-year plan and in the case of a number of items it is even surpassing the figures planned for this period.

For this current year the branch's workers vowed to raise labor productivity by 1.2 percent above the planned figure and to lower production costs by an additional 0.6 percent.

Compared to January-May 1983, our labor productivity increased by 9.7 percent while the plan called for an increase of only 7.7 percent. Production costs fell by 2.24 percent, compared to the annual task which called for 1.02 percent.

This data serves to underscore the reserves which were placed in operation and also the unused potential for intensifying production operations. As is well known, average branch indicators are being achieved by both leading and backward collectives. The latter are decreasing in number and yet some still exist. Hence the measures planned at the beginning of the year are not being

implemented fully and a number of economic leaders are not displaying consistency in achieving their established goals.

The carrying out of delivery plans in keeping with contractual obligations continues to arouse some alarm. On the whole, over a period of 5 months they were fulfilled 98 percent by Minzhivmash. The following facilities have fallen behind in this regard: the Sol'-Iletsk machine building plant for feed production, Tselinograd Iron Foundry (VPO Soyuzkormmash), Mankentskiy machine building plant for animal husbandry, Aktyubinsk plant for agricultural machine building (VPO Soyuzzhivmash), Buryatfermmash (VPO Soyuzfermmash) and the Nezhniptitsemash and Pyatigorsksel'mash production associations (VPO Soyuzptitsemash).

The Board of Minzhivmash is orienting the enterprises and associations towards 100 percent observance of all agreements by each collective. And this complicated goal will be achieved by our machine builders.

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